REMARKS

Reconsideration of the application in light of the following remarks is respectfully requested.

Status of the Claims

Claims 1 and 4-20 are pending. Claims 2 and 3 were previously cancelled without prejudice or disclaimer of the subject matter recited therein. Claim 8 has been amended. Claims 11-14, 17 and 18 have now been cancelled. New claims 21-26 have been added.

Rejections under 35 U.S.C. §103(a) (Green et al. and Tsien)

Claims 1, 5-8, 10, 15, 16, 19, and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,724,419 to Green et al. ("Green") in view of U.S. Patent No. 5, 283,433 to Tsien ("Tsien").

Green et al. describes an automated microscope system and a method for acquiring images at a maximum acquisition rate of the camera while devices external to the camera vary various parameters of the acquired images and operate asynchronously with the camera so as to allow acquired images to be displayed as a sequence that shows continuous variation in the acquisition parameters. See Abstract.

Tsien describes a scanning confocal microscope providing a continuous display.

Independent claim 1 of the present application recites a method for setting the system parameters of a scanning microscope, including:

[i]nputting at least one image quality feature after an image of the specimen is

> acquired, . . . [c]onverting the at least one image quality feature into at least one system parameter of the scanning microscope by the control computer, . . . and [s]etting the at least one system parameter; wherein an image quality expected to be achievable, for the at least one inputted image quality feature, is calculated in the next acquired image and outputted to the user.

The Examiner contends that Green discloses calculating and outputting to the user "an image quality expected to be achievable, for the at least one inputted image quality feature," as recited by claim 1. Applicant respectfully submits that the Examiner has misapplied Green with respect to this feature of claim 1, and that neither Green nor Tsien disclose or suggest this feature.

As stated in the Specification, "the image quality expected to be achievable, for the image quality features presently selected, in the next acquired image is calculated and outputted and/or displayed to the user." Specification, Page 8, lines 1-3. This calculation "can proceed from the new system parameters that are to be set, [and] which have been converted into a new system parameters set on the basis of the image quality features" that the user desires to modify. Specification, Page 8, lines 3-6. Thus, the system can provide a user with an indication of the projected (i.e., expected) quality of the image that will be acquired using the new set of systems parameters that result from the conversion of the desired image quality.

The Specification further illustrates this feature by way of an example in which the display "of the image quality expected to be achieved is . . . accomplished graphically, in particular in color." Specification, Page 8, lines 11-12. "For example, a region of the user interface of the scanning microscope could be embodied in the form a traffic light." Specification, Page 8, lines 12-14. Thus, according to this example, "if the selected system parameter setting . . . results in

information losses" the traffic light can display red to indicate a poor expected image quality. "[I]f the calculated system parameters generate artifacts in the next acquired image," the traffic light could display a yellow light to indicate potential problems with the image quality. And, "if the selected system parameter setting appears useful," the traffic light could display a green light, to indicate that the desired image quality is expected to be achievable without introducing negative effects into the image. Specification, Page 8, lines 12-18.

The Examiner contends this feature is disclosed by Green, stating that "(consecutive images are taken with different desired system parameters . . .) and outputted to the user (231, 241)." Detailed Action, item 3, page 3. As the Examiner notes, Green can acquire images "at different Z-positions/wavelengths" and output them to the user. However, Green does not disclose or suggest calculating or displaying and "an image quality expected," as recited by claim 1. Rather Green merely describes an "information handling system 200 compris[ing] a graphics monitor 231 and a video monitor 241." Green, col. 7, lines 29-31. Green does not describe or suggest providing an indication of "the image quality expected . . . in the next acquired image," as recited by claim 1.

Furthermore, Applicant respectfully submits that neither Green et al. nor Tsien teaches or suggests "inputting at least one image quality feature . . . [and] converting the at least one image quality feature into at least one system parameter," as recited by claim 1.

The Examiner contends that Green's description of changing "both the Z-position and the wavelength" is analogous to "(inputting image quality feature which directly relates bleaching behavior). Detailed Action, item 6, page 6. Applicant respectfully submits that the Examiner has misinterpreted the features of claim 1 and, therefore, respectfully disagrees with the Examiner's contentions.

Claim 1 recites the step of "inputting at least one image quality feature." The image quality feature is then "convert[ed] . . . into at least one system parameter." Thus, the user of the claimed invention is not required to know which system parameters correspond to a specified image quality feature; rather, the user can simply specify an image quality feature, and the system converts the feature to the necessary system parameters. *See* Specification, page 4, lines 24-27 ("For example, a calculation is made as to which system parameters . . . need to be modified in order to yield the image quality features that are to be set" and "[T]he user inputs the manner in which the acquired image is to be modified . . . in terms of its image quality features.").

In contrast, Green does not teach or suggest inputting an image quality feature and then converting that image quality feature into a system parameter of the scanning microscope. Rather, Green merely describes directly inputting changes to system parameters such as wavelength and Z-position. There is no teaching or suggestion, however, of inputting the image quality feature and having the control computer convert that feature to a set of system parameters.

Tsien does not cure the deficiencies of Green et al. Tsien merely describes the use of a confocal microscope to image a specimen, but does not teach or suggest inputting an image quality feature or converting that feature into a system parameter by a control computer.

Independent claim 15 recites a scanning microscope that includes the features of a control computer and an operating console for inputting an image quality feature after an image has been acquired, whereby the image quality feature can be converted by the control computer into a system parameter of the scanning microscope that can be set and the control computer can calculate and output an indication of the image quality expected to be achievable for the inputted image quality feature. For at least the reasons discussed above with respect to independent claim 1, Applicant

respectfully submits that a combination of Green et al. and Tsien would not teach or suggest those features of independent claim 15.

Applicant respectfully requests reconsideration and withdrawal of the rejections to claims 1, 5-8, 10, 15, 16, 19, and 20 under 35 U.S.C. § 103(a) in view of Green and Tsien.

Rejections under 35 U.S.C. §103(a) (Cable et al. and Tsien)

Claims 11-14, 17, and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cable (US 6,614,452) in view of Tsien. Claims 11-4, 17 and 18 have now been cancelled, rendering the rejections moot.

Allowable Subject Matter/new claims

Applicant appreciatively acknowledges the Examiner's indication that claim 4 would be allowed if re-written in independent form. New independent claim 21 has accordingly now been added reciting the limitations of allowable claim 4 and its base claim 1. New independent claim 24 has also been added similarly reciting the limitations of allowable claim 4 along with the limitations of existing independent apparatus claim 15. Dependent claims 22-23 and 25-26 have also been added depending from new claims 21 and 25, respectively, and respectively reciting the limitations of existing dependent claims 5 and 8. It is respectfully submitted that new claims 22-26 are patentable over the cited prior art for at least the same reasons as allowable claim 4 is.

CONCLUSION

Each and every point raised in the Office Action dated September 13, 2006 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that remaining claims 1, 4-10, 15-16, 19 and 20, as well as new claims 21-26, are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Dated: December 13, 2006

Respectfully submitted,

By _____

Erik R. Swanson
Registration No.: 40,833
DARBY & DARBY P.C.
P.O. Box 5257
New York, New York 10150-5257
(212) 527-7700
(212) 527-7701 (Fax)
Attorneys/Agents For Applicants